★★★＜第7回知的財産翻訳検定【第3回英文和訳】試験＞問題★★★

≪２級≫
【解答にあたっての注意】
１．***START*** から***END***までを英訳してください。
２．問題は３題あります。それぞれの問題の指示に従い、３題すべて解答してください。
３．解答語数に特に制限はありません。
４．課題文に段落番号がある場合、これを訳文に記載してください。
５．課題に図面が添付されている場合、該当する図面を参照してください。
★「課題図表の表示／非表示」リンクで表示

[問１]
下記の英語クレームを日本特許出願における「特許請求の範囲」の形式で和訳しなさい

1. An apparatus to be worn on or adjacent to a person's eyes, the apparatus comprising: a frame; an integral heating element that is disposed in and throughout the frame and is configured to provide heat directly or indirectly to provide warmth to the skin of a wearer; and a thermistor to regulate the amount of heat generated by the integral heating element and to keep the frame at an approximately constant temperature.
2. The apparatus of claim 1, wherein the apparatus is one of prescription or non-prescription eyeglasses, prescription or non-prescription sunglasses, goggles, a visor, a shield and a helmet.
3. The apparatus of claim 1 or 2, wherein the heat provided is sufficient to prevent deposition on at least a portion of the apparatus or on at least a portion of the wearer's face of at least one of snow, ice and fog.

[問２]
次の英文を和訳しなさい

Generally speaking, it is known that under certain conditions, aluminum reacts with water to generate hydrogen and heat. It is also known, however, that this type of reaction is not sustainable at ambient temperature. It is believed that a protective oxide layer forms on a metal surface in contact with water at ambient temperature and hinders the reaction. Therefore, it has been accepted by those skilled in the art that the use of aluminum in a reaction with water to generate hydrogen gas requires that the protective oxide layer is efficiently and continuously removed, and that the reaction is kept at an elevated temperature.

A number of hydrogen generators have been developed in the past. The following patent documents constitute a good inventory of the devices and methods of the prior art in the field of hydrogen gas generation using the reaction of aluminum or alloys of aluminum with water.

U.S. Pat. No. 909,536 issued on Jan. 12, 1909, and U.S. Pat. No. 934,036 issued on Sep. 14, 1909, both issued to G. F. Brindley et al. These documents disclose several compositions for generating hydrogen. The compositions comprise any metal which can form an hydroxide when it is brought into contact with a solution of a suitable hydroxide.

[問３]
次の英文を和訳しなさい。

A power supply of the invention for use with outdoor lighting systems will be described. In the following description numerous specific details are set forth to provide a thorough understanding of the present invention. However, it will be apparent to those skilled in the art that the present invention may be practiced without these specific details. In other instances, well known elements, such as transformers and logic gates, have not been described in detail in order to not unnecessarily obscure the present invention.

Referring first to FIG.1 , the power supply may be connected to a controller 2. In the preferred embodiment, the controller will control the operation of the power supply. However, the power supply may be operated without the controller 2. Power is supplied to the power supply 1 and controller 2 through power cords 4.

Referring next to FIG. 2, a brief description of the elements of the present invention and their operation will be provided. Power enters the power supply through power cord 4. The preferred embodiment accepts standard household current of 120VAC. This input signal is full wave rectified by rectifier 150 and filtered to provide a DC signal to the switcher 151 and the low voltage power supply 153.